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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/463,874	06/07/2000	ERICH WANKER	V0179/7000	6909

7590 09/23/2004

HELEN C LOCKHART
WOLF GREENFIELD & SACKS
FEDERAL RESERVE PLAZA
600 ATLANTIC AVENUE
BOSTON, MA 02210-2211

EXAMINER

CHERNYSHEV, OLGA N

ART UNIT	PAPER NUMBER
1646	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	09/463,874	Applicant(s)	WANKER ET AL.
Examiner	Olga N. Chernyshev	Art Unit	1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 August 2004.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) 6-19 is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-5 is/are rejected.
7) Claim(s) 6 and 8-11 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 09, 2004 has been entered.

Response to Amendment

2. Claim 1 has been amended and claims 20-23 have been cancelled as requested in the amendment filed on June 21, 2004. Claims 1-19 are pending in the instant application.

3. Claims 7 and 12-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9.

Applicant is reminded that a complete reply to the final rejection mailed on February 18, 2004 must have included cancellation of nonelected claims 7 and 12-19, see reasons of record in section 17. Appropriate action is required.

4. Claim 1 is objected to for reciting non-elected invention, (see section (e) of the claim). Appropriate action is required.

5. Claims 6 and 8-11 are objected to under 37 CFR 1.75(c) as being in improper form because any dependent claim, which refers to more than one other claim ("multiple dependent

claim ") shall not serve as a basis for any other multiple dependent claims. See MPEP § 608.01(n). Accordingly, the claims 6 and 8-11 have not been further treated on the merits.

6. Claims 1-5, in so far as they are drawn to a nucleic acid molecule encoding a fusion GST/huntingtin protein, a protein encoded thereby, a vector and a host cell with the vector, are under examination in the instant office action.

7. The Text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Any objection or rejection of record, which is not expressly repeated in this action has been overcome by Applicant's response and withdrawn.

9. Applicant's arguments filed on June 21, 2004 have been fully considered but they are not deemed to be persuasive for the reasons set forth below.

Claim Rejections - 35 USC § 112

10. Claims 1-5 stand rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention for those reasons of record specifically explained in section 8 of Paper No. 15 and section 11 of Paper mailed on February 18, 2004.

Applicant traverses the rejection on the premises that "when viewed by one skilled in the art, there is adequate written description in the application to show that the inventors were in possession at the time of filing" and refers to the instant specification at pages 4, 5 and 8-11 (top

at page 10 of the Response). These arguments have been fully considered but were not found to be persuasive for the following reasons.

Claim 1 is directed to a functional derivative of a fusion protein and claim 5 is directed to a fragment or derivative of huntingtin protein. The Examiner maintains the position that the instant specification, as filed, fails to describe the entire genus of proteins, which are encompassed by these claims. The claims encompass proteins, which are fragments or functional derivatives of proteins, while the instant specification, as filed, only discloses the original proteins and fails to teach or describe any other proteins, which are “fragments or functional derivatives”, such proteins that lack the structure of the original proteins and yet maintain their activity.

To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any combination thereof. In this case, the only factor present in the claim is a written reference to a partial structure or common origin. There is not even identification of any particular portion of the structure that must be conserved. The specification does not provide a complete structure of the claimed proteins and fails to provide a representative number of species for the claimed genus. Accordingly, in the absence of sufficient recitation of distinguishing identifying characteristics, the specification does not provide adequate written description of the claimed genus.

Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111, clearly states “applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the ‘written description’ inquiry, whatever is now claimed.” (See page 1117.) The specification does not “clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.” (See *Vas-Cath* at page 1116). As discussed above, the skilled artisan cannot envision the detailed chemical structure of the encompassed genus of protein (those fragments and functional derivatives of the original proteins), and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. The compound itself is required. See *Fiers v. Revel*, 25 USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481 at 1483. In *Fiddes*, claims directed to mammalian FGF’s were found to be unpatentable due to lack of written description for that broad class. The specification provided only the bovine sequence.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 1 is vague and indefinite for recitation “a functional derivative thereof” in section (d). It is not clear and cannot be determined from the claim or the instant specification if a fragment of a fusion protein or a fragment of a nucleic acid is intended by the claim. Clarification is required.

13. Claims 2-5 are indefinite fro being dependent from indefinite claims.

Claim Rejections - 35 USC § 102

14. Claims 1-5 are rejected under 35 U.S.C. 102(a) as being anticipated by Onodera et al. (FEBS Letters, 1996, 399, pp.135-9) for those reasons of record as specifically articulated in section 12 of Paper No. 15.

Applicant is advised that amendment of claim 1, which includes recitation of “wherein at least one of the linker, (poly)peptide (aa) and (poly)peptide (ab) includes a cleavable site”, did not overcome the instant rejection because one would reasonably believe that most peptides comprise “a cleavable site”, especially if treated with trypsin, as it was described in the instant specification (see page 20, Figure 3, for example). Thus, one would conclude that the fusion proteins disclosed by Onodera et al. also comprise “a cleavable site”, absent evidence to the contrary.

Conclusion

15. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga N. Chernyshev whose telephone number is (571) 272-0870. The examiner can normally be reached on 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda G. Brumback can be reached on (571) 272-0961. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Certain papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax center located in Crystal Mall 1 (CM1). The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 C.F.R. § 1.6(d)). NOTE: If Applicant *does* submit a paper by fax, the original signed copy should be retained by Applicant or Applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers.

Official papers filed by fax should be directed to (703) 872-9306. If this number is out of service, please call the Group receptionist for an alternative number. Faxed draft or informal communications with the examiner should be directed to (571) 273-0870. Official papers should NOT be faxed to (571) 273-0870.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Olga N. Chernyshev, Ph.D.


OLGA N. CHERNYSHEV, PH.D.
PATENT EXAMINER